valuing benefits concerned with avoiding amputation twice less than physicians. Anyway the price of prostagladin E1 is about 350 USD for a period of treatment that is much less than the median sum of money named by both groups of respondents.

PCV27

HEALTH ECONOMIC ASSESSMENT OF THE ARCTIC SUN™ MODEL 100 FOR TEMPERATURE MANAGEMENT IN OFF-PUMP CORONARY ARTERY BYPASS SURGERY

Gevirtz FO[1], Kline R[2], Brooks EA[1], Lawten J[2], Buckley AE[3], Roberts SS[3], Gao X[4]

[1]PPD Development, Inc, Morrisville, NC, USA; [2]Medivance, Inc, Louisville, CO, USA; [3]PPD Development, Wilmington, NC, USA; [4]PPD Inc, Morrisville, NC, USA

Hypothermia resulting from invasive surgical procedures can increase blood and fluid loss and complicate the post-operative course of recovery. Therefore, hypothermia can be quite costly to treat. The Arctic SunTM Model 100 is new a non-invasive perioperative warming device, which controls body temperature through single use Arctic Sun Energy Transfer Pads™ regulated by a control module.

OBJECTIVE: To compare the initial surgical and intensive care unit (ICU) outcomes and costs resulting from use of the Arctic Sun vs. standard care of temperature management in patients undergoing off-pump coronary artery bypass (OPCAB) surgery.

METHODS: Data from two clinical studies conducted at a major university were combined with other published data to compare surgical outcomes and treatment costs to the hospital associated with patient re-warming methods.

RESULTS: Preliminary findings in OPCAB procedures indicate post-operative hypothermia incidence is lower for patients using the Arctic Sun™ Model 100 (5% n = 58) compared to patients warmed using the standard warming methods (48%, n = 48). An additional cost of over $338.00 per patient for blood products and fluids received by patients was incurred for the standard care population compared to the Arctic Sun™ population. Compared to normothermic patients, patients who are hypothermic have an average increased hospital stay of 5.8 days ($2,616.96), and an average increased ICU time of 4.2 hours ($236.88). Combining these costs with the costs to treat infections, morbid cardiac events, and additional lab work, the total additional costs for complications due to hypothermia can easily exceed $8,270 per patient.

CONCLUSION: The Arctic Sun™ is an effective temperature management device for OPCAB patients. Combining the Arctic Sun™ clinical data with published economic data suggests that the Arctic Sun™ for temperature management in OPCAB procedures could save over $33,800 in blood product costs and over $355,000 in complication costs per 100 patients.

PCV28

A COST ANALYSIS OF "BRIDGING THERAPY" FOR PATIENTS REQUIRING INTERRUPTION OF CHRONIC ANTICOAGULATION

Amorosi SL[1], Thompson D[1], Goldhaber SZ[2], Tsilimingras K[2], Fanikos J[2], Weinstein MC[3]

[1]Innovus Research, Inc, Medford, MA, USA; [2]Brigham & Women's Hospital, Boston, MA, USA; [3]Harvard School of Public Health, Boston, MA, USA

OBJECTIVE: Patients on long-term anticoagulation requiring interruption of therapy for a surgical procedure historically have been hospitalized to receive "bridging therapy" with continuous infusion intravenous unfractionated heparin (UFH). Recently, low-molecular weight heparins such as enoxaparin have been reported to have comparable safety and efficacy in this indication, and can be administered on an outpatient basis. The objective of this study was to compare the costs of bridging therapy with enoxaparin versus UFH in this patient population.

METHODS: We conducted a cost-minimization analysis of bridging therapy from the perspective of a third-party health insurer. Patient treatment protocols were set forth to reflect current clinical practice. Bridging therapy was assumed to take place over an eight-day period, reflecting three preoperative days, one day of surgery, and four postoperative days. Three alternative bridging strategies were considered: (1) UFH 30,000 units/day administered in hospital; (2) enoxaparin 1.0 mg/kg self-administered twice-daily by the patient at home; and (3) enoxaparin 1.5 mg/kg administered once-daily in the patient's home by a visiting nurse. Various secondary sources were used to estimate the costs of drug acquisition, ancillary supplies, provider services, and hospitalization. Analyses were performed for day surgery, surgery requiring overnight stay, and surgery requiring a stay of 4+ days.

RESULTS: Bridging therapy with UFH in hospital costs $4,397 per patient for day surgery, $3,818 for procedures requiring an overnight stay, and $2,080 for procedures requiring a stay of 4+ days (2001 US$). Corresponding cost estimates for patient-administered enoxaparin are $663, $673, and $743. Cost estimates for nurse-administered enoxaparin are $990, $935, and $771, respectively.

CONCLUSIONS: Bridging therapy with enoxaparin at home whether patient-administered or nurse-administered is substantially less costly than bridging with UFH in hospital. The magnitude of cost savings is highest for day surgery and lowest for surgeries requiring a prolonged recovery in hospital.

PCV29

INFLUENCE OF COMORBID CONDITIONS IN THE HOSPITALIZATION OF ANGINA PATIENTS

Morris L, Henderson SC, von Allmen H, Gale B, Margolis J

IMS Health, Plymouth Meeting, PA, USA

OBJECTIVE: To determine if certain diagnoses and comorbidities influence the risk of hospitalization for angina patients.
METHODS: Study was conducted using IMS HEALTH's LifeLink™ database, a U.S. employer claims database consisting of more than 1.8 million covered lives, with linked medical and pharmacy claims for employees, dependents, and retirees from 1991 forward. Patients were diagnosed with angina in the period March 1, 1999 to February 29, 2000. Unstable angina patients were placed in a single cohort. Stable angina patients were further classified based on the presence of hypertension, congestive heart failure (CHF), diabetes, or other heart disease in the 36 months preceding their angina diagnosis.
RESULTS: 125,453 patients met the inclusion criteria—32,672 with unstable angina and 92,781 with stable angina. Patients with unstable angina were significantly more likely to be hospitalized (53.3%) than patients with stable angina (27.3%) ($p < 0.001$). When comparing unstable to stable angina patients with comorbid conditions, patients with unstable angina were more likely to be hospitalized than stable angina patients, regardless of the combination of comorbidities in stable angina patients (odds ratios between 1.20 and 10.47). Stable angina patients with comorbid hypertension, diabetes, and CHF had the most similar risk of hospitalization compared to unstable angina patients, but still were significantly less likely to be hospitalized (OR = 0.83, 95% CI = 0.79, 0.87). Unstable angina patients had the highest likelihood of hospitalization compared to patients with stable angina and no comorbidities (OR = 10.47, 95% CI = 9.76, 11.22). Among stable angina patients, hospitalization rates were highest for patients with comorbid CHF (ranging from 36.6% for patients with CHF only to 48.7% for patients with CHF, hypertension, and diabetes).
CONCLUSIONS: Patients with unstable angina were significantly more likely than stable angina patients to be hospitalized, even if the stable angina patients had a number of complicating comorbid conditions. Presence of unstable angina greatly increased the risk of hospitalization.

PCV30

ECONOMIC EVALUATION OF THREE MARKET LEADING HMG-CO-A REDUCTASE INHIBITORS

Danielson DL
University of North Carolina-Chapel Hill, Chapel Hill, NC, USA

The National Institutes of Health's Adult Treatment Panel III (ATP-III) guidelines define the population of hypercholesterolemic patients for whom drug therapy is suggested. A wide body of evidence indicates that elevated low-density lipoprotein (LDL-C) is a major risk factor for coronary heart disease (CHD). Thus, the ATP-III guidelines target LDL-C levels for reduction in hypercholesterolemic patients in an effort to reduce CHD risk. The drug of choice is an HMG-CoA Reductase Inhibitor (statin), which has demonstrated effectiveness in reducing LDL-C.
OBJECTIVES: To determine if the relative cost-effectiveness of the three most commonly prescribed statins is affected by the initial LDL-C and ATP-III goals.
METHODS: A Monte Carlo simulation was used to model therapeutic course to target using data from published trials including (pre-treatment LDL-C distributions, expected LDL-C reduction by drug and dose and ATP-III LDL-C goals). Data from this model were entered into a cost-effectiveness analysis model in Data 4.0 (TreeAge Software, Inc, 2001). One-way sensitivity analyses were conducted upon pre-treatment LDL-C distribution, statin performance, and costs of: drugs, time away from work/home, office visits, laboratory tests and mono-therapy failure.
RESULTS: Atorvastatin dominated the model, having the lowest drug cost and failure rate, regardless of initial LDL-C level or ATP-III guideline goal. Base case (mean LDL-C 188.9 mg/dl [SD 24.0] and goal LDL-C of 100 mg/dl) cost-effectiveness ratios for atorvastatin, simvastatin and pravastatin were $(US) 1,721, $(US) 3,641 and $(US) 22,029 respectively. Alternative case (mean LDL-C 149.6 mg/dl [SD 16.8] and goal LDL-C of 100 mg/dl) cost-effectiveness ratios for atorvastatin, simvastatin and pravastatin were $(US) 965, $(US) 1,552 and $(US) 2,498 respectively.
CONCLUSIONS: Atorvastatin was the most cost-effective treatment among the tested statins. Cost-effectiveness rankings were insensitive to all tested variables. Cost-effectiveness was primarily determined by the performance characteristics of each drug and drug cost.

PCV31

COST-EFFECTIVENESS ANALYSIS OF THE ARCTIC SUN™ MODEL 100 FOR TEMPERATURE MANAGEMENT IN OFF-PUMP CORONARY ARTERY BYPASS SURGERY

Gevirtz FO[1], Kline R[2], Brooks EA[1], Lawten J[2], Gao X[1], Roberts SS[3], Buckley AE[3]
[1]PPD Development, Morrisville, NC, USA; [2]Medivance, Inc, Louisville, CO, USA; [3]PPD Development, Wilmington, NC, USA

It is well known that surgery performed under general anesthesia commonly results in hypothermia. Surgical hypothermia is a serious, but preventable, condition. It is becoming increasingly important, however, to provide decision-makers with evidence of the cost-effectiveness as well as the clinical benefit of preventive measures.
OBJECTIVE: Using the hospital perspective, the outcomes and cost-effectiveness of the Arctic Sun Model 100 for the prevention of hypothermia in patients undergoing off-pump coronary artery bypass surgery is explored.